Contents

	bout the authors	vi
	knowledgements	viii
LI	st of abbreviations	ix
PA	ART I INTRODUCTION	
1	Introduction	2
2	The changing role of energy in society	21
PA	ART II POLICIES AND INSTITUTIONS	
3	Energy policy	
4	Science and technology innovation	48
5	Energy innovation	81 112
PA	RT III TECHNOLOGY CASE STUDIES	
6	Understanding and measuring energy innovation	147
7	Heat pumps	179
8	Wind energy	214
9	Wave energy	240
10	Building integrated photovoltaics	282
11	Shale gas	322
12	Smart grids	359
PA]	RT IV LESSONS	
13	Lessons for effective energy innovation	396
Inde	ex	427